



AMENDMENT

Presented below are the amended claims in a clean-unmarked version

In the claims:

1. A striping disk controller and disk drive system for a computer system wherein said computer system includes a CPU connected to a system bus and executes an operating system including a BIOS, said striping disk controller and disk drive system comprising: an interface connected to said system bus and communicating with said BIOS; first and second disk drives each having data separator electronics, data formatting electronics and head positioning electronics; a striping controller connected between said first and second disk drives and said interface, said striping controller to cause data being communicated between said system bus and said first and second drives to be written to and read from said first and second drives in an interleaved form and substantially in parallel.

2. The system of claim 1 wherein said data being communicated between said system bus and said first and second drives is subdivided into a plurality of sequential blocks and said first drive is

accessed for every other block of data and said second drive is accessed for the remaining blocks.

3. The system of claim 1 wherein said BIOS supplies a system request that includes a sector bit string, a head bit string, a track bit string and a driver bit and wherein said striping controller maps bits of said system request to a first system request data structure to be supplied to said first disk drive and a second system request data structure to be supplied to said second disk drive.

7. (Twice Amended) A method of writing data onto two disk drives using a striping controller connected to system bus, said method comprising:
receiving at a striping controller an IDE system request intended for a single physical drive from the system bus; and
writing to and reading from a first and a second drive in an interleaved form and substantially in parallel in response to said IDE system request.

8. A striping disk controller comprising:
an interface connectable with a system bus and communicating data via said system bus; and
control logic connected with said interface to cause data being communicated via said system bus to be written to and read from a

first and a second disk drive in an interleaved form and substantially in parallel.

9. The controller of claim 8 further including:
control logic to subdivide said data being communicated via said system bus into a plurality of sequential blocks, said control logic further designed to access said first drive for every other block of data; and said control logic further designed to access said first drive for every other block of data; and said control logic further designed to access said second drive for the remaining blocks.
10. The controller of claim 8 further including:
control logic to receive a system request that includes a sector bit string, a head bit string, a track bit string and a driver bit; and control logic to map bits of said system request to a first system request data structure to be supplied to said first disk drive and a second system request data structure to be supplied to said second disk drive.
11. The controller of claim 8 further including:
control logic to receive a system request intended for a single physical drive from the system bus.

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12. (Amended) An apparatus for writing data onto two disk drives connected to system bus, said apparatus comprising:
means for receiving an IDE system request intended for a single physical drive from the system bus; and
means for writing to and reading from a first and a second drive in an interleaved form and substantially in parallel in response to said IDE system request.

13. The apparatus of claim 12 further including:
means for subdividing said data being communicated between said system bus and said first and second drives into a plurality of sequential blocks;
means for accessing said first drive for every other block of data ;
and
means for accessing said second drive for the remaining blocks.

14. The apparatus of claim 12 further including:
means for supplying a system request that includes a sector bit string, a head bit string, a track bit string and a driver bit; and
means for mapping bits of said system request to a first system request data structure to be supplied to said first disk drive and a second system request data structure to be supplied to said second disk drive.

15. A striping disk controller and disk drive system for a computer system wherein said computer system includes a CPU connected to a system bus and executes an operating system including a BIOS, said striping disk controller and disk drive system comprising: means for interfacing with said system bus and communicating with said BIOS; first and second storage means each having data separator electronics, data formatting electronics and head positioning electronics; a controller means connected between said first and second storage means and said means for interfacing, said controller means to cause data being communicated between said system bus and said first and second storage means to be written to and read from said first and second storage means in an interleaved form and substantially in parallel.

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16. (New) A system comprising:
a central processing unit (CPU) connected to a system bus and executing an operating system including a Basic Input/Output Operating System (BIOS);
an IDE interface connected to the system bus and communicating with the BIOS;

a striping controller connected between the IDE interface and a first storage and a second storage, wherein the striping controller, based on a standard IDE driver instruction, causes data being communicated to be written to and read from the first and second storage in an interleaved form and substantially in parallel.

17. (New) The system of claim 16, wherein the striping controller comprises an exclusive-or gate; a first FIFO memory driven by a signal from the exclusive-or gate to access the first storage and a second FIFO memory driven by the signal inverted from the exclusive-or gate to access the second storage.
18. (New) A method comprising: receiving a standard IDE driver instruction intended for accessing a single IDE disk drive and interpreting the standard IDE driver instruction such that data associated with the standard IDE driver instruction is interleaved between a first IDE disk drive and a second IDE disk drive.